

February 25, 2005

Vicente Santa Cruz, Ph.D.
Product Stewardship, Toxicology
Chevron Phillips Chemical Company LP
10001 Six Pines Drive
Suite 4103
The Woodlands, TX 77380

Dear Dr. Cruz:

The Office of Pollution Prevention and Toxics is transmitting EPA's comments on the test plan for Benzenemethanethiol (benzyl mercaptan; CAS No. 100-53-8) posted on the ChemRTK HPV Challenge Program Web site on April 19, 2004. I commend Chevron Phillips Chemical Company LP for its commitment to the HPV Challenge Program.

EPA reviews test plans and robust summaries to determine whether the reported data and test plans will provide the data necessary to adequately characterize each SIDS endpoint. On its Challenge Web site, EPA has provided guidance for determining the adequacy of data and preparing test plans used to prioritize chemicals for further work.

EPA has reviewed this submission and has reached the following conclusions:

For human health, EPA does not consider phenyl mercaptan (thiophenol) appropriate for use as an analogue for benzyl mercaptan. The metabolic profiles of these chemicals are expected to be very different. Phenyl mercaptan is expected to be metabolized like a typical aromatic substrate while metabolism of benzyl mercaptan is likely to focus on the methanethiol group. EPA agrees with the proposed testing of the sponsored chemical for chromosomal aberrations according to OECD TG 473. To satisfy the other SIDS endpoints, EPA recommends a combined repeated-dose/reproductive/developmental toxicity screening study of the sponsored chemical according to OECD TG 422 instead of the proposed OECD TG 407.

EPA agrees with the planned testing for algae according to OECD TG 201 and fish according to OECD TG 203.

The estimated value provided suggests that the water solubility for benzyl mercaptan would be >1 µg/L. The water solubility data are thus not adequate; a measured value is needed.

EPA will post this letter on the HPV Challenge Web site within the next few days. We ask that Chevron Phillips advise the Agency, within 60 days of this posting on the Web site, of any modifications to its submission. Please send any electronic revisions or comments to the following e-mail addresses: oppt.ncic@epa.gov and chem.rtk@epa.gov.

If you have any questions about this response, please contact Mark Townsend, Acting Chief of the HPV Chemicals Branch, at 202-564-8617. Submit questions about the HPV Challenge Program through the "Contact Us" link on the HPV Challenge Program Web site pages or through the TSCA

Assistance Information Service (TSCA Hotline) at (202) 554-1404. The TSCA Hotline can also be reached by e-mail at tsca-hotline@epa.gov.

I thank you for your submission and look forward to your continued participation in the HPV Challenge Program.

Sincerely,

-S-

Oscar Hernandez, Director
Risk Assessment Division

Enclosure

cc: W. Penberthy
M. E. Weber